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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
NPI-51 (19673)

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

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Application Number	Filed
10/749,687	December 31, 2003

First Named Inventor
Francis Joseph Kronzer

Art Unit	Examiner
1734	Sing P. Chan

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- ☑ attorney or agent of record. Registration number 56,405.
- ☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

Signature

Alan R. Marshall
Typed or printed name

864-271-1592
Telephone number

October 19, 2007
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☑ *Total of 1 forms are submitted.

PATENT
ATTORNEY DOCKET NO: NPI-51 (19673)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Francis J. Kronzer	Examiner: Sing P. Chan
Serial No: 10/749,687	Art Unit: 1734
Filed: December 31, 2003	Account No: 04-1403
Confirmation No: 2173	Customer No: 22827
Title: Matched Heat Transfer Materials and Method of Use Thereof	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sir:

In conjunction with the filing of a Notice of Appeal, Applicants respectfully request review of the basis of rejections of pending claims 65-107, including independent claims 65, 100, and 104, in the present application. In the Final Office Action, independent claims 65 and 100 were rejected under *35 U.S.C. § 102(b)* as being anticipated by U.S. Patent No. 6,017,636 to Tada, et al. Additionally, independent claim 104 was rejected under *35 U.S.C. § 103(a)* as being obvious in view of Tada, et al.

Tada, et al. discloses five embodiments of a transfer system that employs a transfer layer formed from an emulsion-type urethane resin and preferably a ceramic micropowder. Only the second, fourth, and fifth embodiments disclose the use of two transfer sheets. Referring to Fig. 1, for instance, one embodiment of the transfer system of Tada, et al. employs a first transfer sheet A having the following layers:

(1) Urethane emulsion resin layer 2 containing a ceramic micropowder; and
(2) Release sheet 1.

The transfer system of Fig. 1 also employs a second transfer sheet B having the following layers:

(1) Release sheet 3
(2) Lower, heat-adhering resin layer 4;
(3) Middle layer 5; and
(4) Upper, heat-adhering resin layer 6 containing a pigment or micropowder.

According to these embodiments in Tada, et al., the image is disposed between the urethane emulsion layer 2 and the upper layer 6. The transfer methods of Tada, et al. result in the final image on the substrate coated with the urethane emulsion layer 2 to help protect the image.

A. Tada, et al. fails to teach or suggest an overlay transfer film that is "melt-flowable" at the transfer temperature

The urethane emulsion layer 2 of Tada, et al. has a specific softening point such that it can prevent the flow of a toner layer during heat-pressing. Col. 5, lines 13-16. Specifically, the urethane emulsion is said to preferably have a softening point of 140°C to 220°C, while transfer preferably occurs at a temperature of 120°C to 180°C. Cols. 4-5. Since these ranges overlap, the Office Action apparently concludes that the urethane emulsion layer 2 softens and flows at the transfer temperature. However, this conclusion contradicts the express teachings of Tada, et al. In fact, the entire purpose of Tada, et al. is directed to preventing melting and flowing of the toner layer through use of a non-flowable urethane emulsion layer 2. See, e.g., Col. 1, lines 26-31, lines 43-46; and Col. 5, lines 1-3, lines 13-16. Thus, Tada, et al. expressly requires that the

urethane emulsion layer 2 does not flow at the transfer temperature in order to prevent influence of the toner layer.

In stark contrast, independent claims 65, 100, and 104 of the present application require the use of an "overlay transfer film" that is "melt-flowable" at the transfer temperature. In this manner, the overlay transfer film may fuse or melt together with the "peelable transfer film" to form a matched "fused" laminate. Thus, Applicants respectfully submit that Tada, et al. fails to teach or suggest an overlay transfer film that is melt-flowable at the transfer temperature. As such, Applicants submit that independent claims 65, 100, and 104 are patentable over Tada, et al.

B. If the Office Action's interpretation of urethane emulsion layer 2 is upheld, contrary to the express teachings of Tada, et al., then Tada, et al. fails to teach a melt-resistant layer that does not appreciably flow at the transfer temperature

If the urethane emulsion layer 2 of Tada, et al. is interpreted to melt and flow at the transfer temperature, contrary to the express teachings of Tada, et al., then the other layers (i.e., the upper, middle, and lower layers) would also necessarily flow at the transfer layer. Tada, et al. teaches that these layers are positioned between the substrate and the image to attach the image to the substrate. According to Tada, et al., the upper layer 6 becomes the background layer for the toner image layer after heat-transfer. The upper layer 6 is preferably formed from a urethane resin emulsion having a softening point of 140°C to 220°C. The lower layer 4 is preferably formed from a solvent-type urethane resin and polyester type resin, and softens and flows into the inner surface of the transfer object. The middle layer 5 functions to keep together the upper layer 6 and the lower layer 4, and is preferably formed from the same resin

composition as the lower layer 4. Col. 6. Undoubtedly, Tada, et al. requires that both the lower and middle layers soften and flow at the transfer layer.

In rejecting the pending independent claims, the Office Action states that the upper layer is formed of resin with a softening point of 80 °C to 200 °C. The Office Action concludes that the embodiments having a softening point above the transfer temperatures of 120 °C to 180 °C would not soften and flow. However, in making this conclusion the Office Action fails to take into account all of the teachings of Tada, et al. Tada, et al. states that the urethane resin emulsion described with reference to the urethane emulsion layer 2 can be used as the resin of the upper layer 6. In fact, in each of the disclosed embodiments having two transfer sheets (the second, fourth, and fifth embodiments), the upper layer 6 has the same resinous composition as its respective urethane emulsion layer 2. Thus, the urethane emulsion layer 2 and the upper layer 6 would have nearly identical softening and melt flow properties as each other.

As such, if Tada, et al. is interpreted as disclosing that the urethane emulsion layer 2 softens and flows at the transfer temperature (as attempted by the Office Action and contrary to the express teachings of Tada, et al.), then the upper layer 6 would also soften and flow at the transfer temperature. Under this interpretation, Tada, et al. fails to teach or suggest melt-resistant layer that is not appreciably melt-flowable at the transfer temperature.

C. Conclusion

In either interpretation of Tada, et al., Applicants respectfully submit that Tada, et al. simply fails to teach or even suggest the specific combination of a melt-flowable overlay transfer film (overlying the image) and a flow-resistant layer (positioned between

the image and the substrate), which is required by each independent claim of the present invention. Thus, Applicants respectfully submit that Tada, et al. simply fails to disclose or suggest all of the limitations of the method of independent claims 65, 100, and 104. Applicants note that a claim is anticipated under 35 U.S. C. § 102 only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. M.P.E.P. § 2131. Likewise, in order to establish *prima facie* obviousness, all of the claimed limitations must be taught or suggested in the prior art. See, e.g., MPEP § 2143.03.

D. Dependent Claims

None of the cited references teach or suggest that the melt flow index of a flow-resistant layer is less than the melt flow index of an adhesive layer, such as required in claim 83. Even further, the cited references completely fail to teach or suggest that the melt flow index of a flow-resistant layer is less than the melt flow index of an adhesive layer by a factor of at least 10, much less by a factor of at least 1000. As such, Applicants respectfully submit that claims 83-85 are patentable over the cited references.

Respectfully submitted,

DORITY & MANNING, P.A.

Date: October 19, 2007

Alan R. Marshall
Registration No.: 56,405
P.O. Box 1449
Greenville, SC 29602-1449
Phone: (864) 271-1592
Facsimile: (864) 233-7342